

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1-5. (Cancelled)

6. (Currently Amended) ~~The A method of claim 5, further comprising:~~
~~attaching an adhesive to a back side of a semiconductor wafer;~~
~~scribing lines along streets on a front side of the semiconductor wafer;~~
~~cutting and severing the semiconductor wafer along the streets into a plurality of~~
~~portions, the cutting and severing being performed in a manner that allows the portions~~
~~to remain proximally disposed with each other within an area having a shape and size~~
~~substantially that of the semiconductor wafer prior to the cutting and severing;~~
~~applying a tape from the front side of the semiconductor wafer to tape the~~
~~portions together to form a taped-together semiconductor wafer;~~
~~cutting the tape and the adhesive attached to the back side of the taped-together~~
~~semiconductor wafer to substantially define a perimeter of the taped-together~~
~~semiconductor wafer; and~~
~~removing the adhesive from the back side of the taped-together semiconductor~~
~~wafer; and~~
~~grinding the back side of the taped-together semiconductor wafer.~~

7. (Currently Amended) The method of claim [[5]] 6, further comprising:
mounting the taped-together semiconductor wafer having its back side grinded;
and
detaping the tape from the front side of the taped-together semiconductor wafer.

8. (Previously Presented) A method of thinning a semiconductor wafer, the method comprising:
attaching an adhesive to a back side of the semiconductor wafer;

scribing lines along streets separating integrated circuit devices along a front side of the semiconductor wafer;

cutting the semiconductor wafer along the streets of the semiconductor wafer with the scribed lines to cut and sever the semiconductor wafer into a plurality of portions, with the portions remaining proximally disposed to each other and held in place by the adhesive within an area having a shape and size substantially that of the semiconductor wafer prior to the cutting and severing;

applying a protective layer onto at least a portion of the front side of the adhesively held-together semiconductor wafer;

cutting the protective layer and the adhesive attached to the backside of the adhesively held-together semiconductor wafer to define a perimeter of the adhesively held-together semiconductor wafer; and

grinding the backside of the adhesively-held together semiconductor wafer to reduce a thickness of the adhesively-held together semiconductor wafer.

9. (Original) The method of claim 8 wherein the semiconductor wafer includes an interlayer dielectric (ILD) layer having a low dielectric constant (K).

10. (Previously presented) The method of claim 9 wherein said scribing of lines along the streets includes laser scribing through the ILD layer having a low dielectric constant (K).

11. (Previously presented) The method of claim 8 wherein said scribing of lines along the streets includes scribing two lines substantially along either side of each street.

12. (Previously presented) The method of claim 8 wherein said applying of the protective layer includes applying a protective coating.

13. (Original) The method of claim 8, further comprising removing the protective layer.

14. (Original) The method of claim 8 further comprising, removing the adhesive cut to define the perimeter of the semiconductor wafer.

15. (Original) The method of claim 8, wherein the protective layer includes a backgrind tape.

16. (Previously Presented) The method of claim 8, further comprising:
mounting the adhesively held-together semiconductor wafer having its back side grinded; and
removing the protective layer from the front side of the adhesively-held together semiconductor wafer.

17. (Cancelled)

18. (Currently Amended) The method of claim [[17]] 22 wherein the semiconductor device includes a low-K interlayer dielectric (ILD) layer, and said dicing of the semiconductor wafer includes:

laser scribing through the low-K ILD layer to form trenches in the low-K ILD layer; and

sawing the semiconductor wafer along the formed trenches to singulate semiconductor devices of the semiconductor wafer.

19. (Previously presented) The method of claim 18, wherein said laser scribing through the low-K ILD layer includes scribing two lines along streets separating adjacent ones of the semiconductor devices.

20. (Cancelled)

21. (Cancelled)

22. (Currently Amended) ~~The method of claim 24, further comprising:~~
~~mounting with an adhesive a semiconductor wafer, the semiconductor having a~~
~~first and a second opposite side;~~

dicing the mounted semiconductor wafer into a plurality of dice, the dicing being performed in a manner that allows the dice to remain proximally disposed to each other within an area having a shape and size substantially that of the semiconductor wafer prior to the dicing;

taping together with a tape the dice, from the first side, to form a taped-together semiconductor wafer;

cutting the tape applied to form the taped-together semiconductor wafer;

cutting the adhesive used to mount the taped-together semiconductor wafer to approximate a-the shape of the taped-together semiconductor wafer before removing the adhesive.;

removing the adhesive; and

grinding the second side of the taped-together semiconductor wafer.

23. (Currently Amended) The method of claim [[21]] 22 wherein the adhesive is a mounting tape.

24. (Currently Amended) The method of claim [[17]] 22, further comprising mounting the taped-together semiconductor wafer having its second side grinded onto a wafer frame.

25. (Previously Presented) The method of claim 24, further comprising removing a tape applied from the first side to form the taped-together semiconductor wafer.

26. (Cancelled)

27. (Cancelled)